

CAS search: 09/06/01

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NEWS 5 Aug 19 Aquatic Toxicity Information Retrieval (AQUIRE)  
now available on STN  
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NEWS 7 Sep 03 JAPIO has been reloaded and enhanced  
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NEWS 9 Sep 16 CA Section Thesaurus available in CAPLUS and CA  
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NEWS 12 Oct 24 Nutraceuticals International (NUTRACEUT) now available on STN  
NEWS 13 Nov 18 DKILIT has been renamed APOLLIT  
NEWS 14 Nov 25 More calculated properties added to REGISTRY  
NEWS 15 Dec 04 CSA files on STN  
NEWS 16 Dec 17 PCTFULL now covers WP/PCT Applications from 1978 to date  
NEWS 17 Dec 17 TOXCENTER enhanced with additional content  
NEWS 18 Dec 17 Adis Clinical Trials Insight now available on STN  
NEWS 19 Jan 29 Simultaneous left and right truncation added to COMPENDEX,  
ENERGY, INSPEC  
NEWS 20 Feb 13 CANCERLIT is no longer being updated  
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NEWS 25 Feb 26 PCTFULL now contains images  
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structures available in REGISTRY  
NEWS 30 Apr 11 Display formats in DGENE enhanced  
NEWS 31 Apr 14 MEDLINE Reload  
NEWS 32 Apr 17 Polymer searching in REGISTRY enhanced  
NEWS 33 Jun 13 Indexing from 1947 to 1956 added to records in CA/CAPLUS  
NEWS 34 Apr 21 New current-awareness alert (SDI) frequency in  
WPIDS/WPINDEX/WPIX  
NEWS 35 Apr 28 RDISCLOSURE now available on STN  
NEWS 36 May 05 Pharmacokinetic information and systematic chemical names  
added to PHAR  
NEWS 37 May 15 MEDLINE file segment of TOXCENTER reloaded  
NEWS 38 May 15 Supporter information for ENCOMPPAT and ENCOMPLIT updated  
NEWS 39 May 16 CHEMREACT will be removed from STN  
NEWS 40 May 19 Simultaneous left and right truncation added to WSCA  
NEWS 41 May 19 RAPRA enhanced with new search field, simultaneous left and  
right truncation  
NEWS 42 Jun 06 Simultaneous left and right truncation added to CBNB  
NEWS 43 Jun 06 PASCAL enhanced with additional data

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NEWS EXPRESS April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP), AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003  
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FILE 'HOME' ENTERED AT 16:16:57 ON 16 JUN 2003

=> s (phycobilisome? or phycobilisome? or phycobilosome? or phycobilosome? or cyanonobacteria or red(w)algae) and (waveguide? or fiber(3a)optic?)  
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FILE COVERS 1907 - 16 Jun 2003 VOL 138 ISS 25  
FILE LAST UPDATED: 15 Jun 2003 (20030615/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s (phycobilisome? or phycobilisome? or phycobilosome? or phycobilosome? or cyanonobacteria or red(w) algae) and (waveguide? or fiber(3a) optic?)

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2 PHYCOBILLISOME?  
3 PHYCOBIOSOME?  
0 PHYCOBILLOSOME?  
0 CYANONOBACTERIA  
334891 RED  
39096 ALGAE  
1741 RED(W) ALGAE  
38628 WAVEGUIDE?  
443169 FIBER  
787601 OPTIC?  
45366 FIBER(3A)OPTIC?  
L1 1 (PHYCOBILISOME? OR PHYCOBILLISOME? OR PHYCOBIOSOME? OR PHYCOBILLOSOME? OR CYANONOBACTERIA OR RED(W) ALGAE) AND (WAVEGUIDE? OR FIBER(3A)OPTIC?)

=> d

L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS  
AN 1996:657905 CAPLUS  
DN 126:4034  
TI Phycobiliproteins encapsulated in sol-gel glass  
AU Chen, Zhongping; Kaplan, D. L.; Yang, K.; Kumar, J.; Marx, K. A.; Tripathy, S. K.  
CS Development and Engineering Center, U.S. Army Natick Research, Natick, MA, 01760, USA  
SO Journal of Sol-Gel Science and Technology (1996), 7(1/2), 99-108  
CODEN: JSGTEC; ISSN: 0928-0707  
PB Kluwer  
DT Journal  
LA English

=> d ab

L1 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS  
AB Light transducing phycobiliproteins are encapsulated in optically transparent sol-gel matrixes. Absorption and fluorescence spectroscopies are used to characterize the effect of the sol-gel encapsulation on the conformation and aggregation states of the three major phycobiliproteins present in **phycobilisomes**: phycoerythrin, phycocyanin, and allophycocyanin. It is found that the effects of sol-gel entrapment on the spectroscopic properties are significantly different for the three phycobiliproteins. The results indicate that phycoerythrin undergoes only minor change in its native structure when entrapped in sol-gel. However, significant changes in conformation and aggregation state occur when phycocyanin and allophycocyanin are entrapped in sol-gel matrixes. A thin film of sol-gel encapsulated phycoerythrin is also coated on an **optical fiber** surface and strong fluorescence from the evanescent wave excitation is detected. The potential applications of sol-gel encapsulated phycobiliproteins in biosensors are discussed.

=> log y]  
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